

## **OPTIMIZATION WITH UNKNOWN OBJECTIVE FUNCTION**

### **ABSTRACT OF THE DISCLOSURE**

Nonlinear optimization is applied to resource allocation, as for  
5 example, buffer pool optimization in computer database software where only  
the marginal utility is known. The method for allocating resources comprises  
the steps of starting from an initial allocation, calculating the marginal utility  
of the allocation, calculating the constraint functions of the allocation, and  
applying this information to obtain a next allocation and repeating these steps  
10 until a stopping criteria is satisfied, in which case a locally optimal allocation  
is returned.